

**Alaska Energy Authority & Denali Commission  
Emerging Energy Technology Fund Progress Report**

**Grant Number:** 74310049

**Project Title:** Small Community Self Regulating Grid – Tuntutuliak

**Grantee:** Intelligent Energy Systems

**Reporting Period:** October 1 to December 31, 2014

**Deliverables Submitted:** Estimated installation costs.

**Budget:** Project remains on budget and within the limits of the revised schedule.

**Schedule Status:** Instrumentation is 75% installed.

**Percent Complete:** 55% project completion overall.

Miles tone	Task		Deliverables	Progress Status
	1	Purchase components for controller upgrades and software license		100% Complete
	2	Complete controller programming for prototype		85% Complete
	3	Test single ETS unit controller for frequency response at ACEP test facility	1. ACEP test results	100% complete. Final report from UAF/INE complete
	4	Develop system instrumentation plan	2. System one line, & 3. Instrumentation Plan	100% complete
	5	Purchase data collection instrumentation		100% complete
	6	Install data collection instrumentation, and baseline data collection	4. Estimated installation costs	75% complete
	7	Purchase installation and commissioning components		100% complete
	8	3-phase load balancing system		In progress
	9	Install and commission SRG system	5. Commissioning report installations	
	10	Monitor system in centralized and distributed frequency controls modes and optimize system efficiency		
	11	Economic analysis on stove consumption	6. Economic analysis	In progress with ISER
	12	Data evaluation and draft project report	7. Draft project report	
	13	Final project report	8. Final report	

**Work Progress:** Installation of ETS stoves in residential homes was started. Power Quality monitoring equipment was installed in the power plant. Parts were ordered to finish wiring for SRG. The Estimated Installation Costs Deliverable is completed and included in this report.

**Future Work:** Programming of monitoring equipment, Upgrading of ETS controllers, baseline power quality studies, and implementation of data collection and reporting system. Commissioning will begin as soon as the programming can be completed.